

REMARKS

This is intended as a full and complete response to the Final Office Action dated October 30, 2008 having a shortened statutory period for response set to expire on January 30, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 3-16, 39-40, 42-77 and 79-99 are pending in the application and remain pending following entry of this response.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 3-11, 15-16, 39-40, 42-43, 48-58, 62-69, 71-73, 79-88, 90-92 and 97-99 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by *Myles et al.* (U.S. Patent No. 6,879,579, hereinafter, "*Myles*"). Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Myles* fails to teach each and every element as set forth in the claims. For example, regarding claims 1, 15, and 39 *Myles* fails to teach "determining a current operating state of a terminal" and "selecting one contention-based random access channel from among at least two contention-based random access channels based on the current operating state."

In rejecting these claims, the Examiner seems to confuse "determining a current state of a terminal" with determining a current state of a channel. The portion of *Myles* cited by the

Examiner describes how a channel may be defined to be in one of three states. *Myles* does not teach determining a current operating state of a terminal and certainly does not teach selecting a random access channel based on the current operating state of the terminal.

As recited in claim 15, an operation state may include registered and un-registered states. As described in Figure 4 and paragraph [0038] of the publication of the present application, user terminals that are registered and can compensate for their round trip delays (RTD) may use a “fast” random access channel (F-RACH), while both registered and unregistered user terminals may use a slow random access channel (S-RACH).

Myles does not teach or suggest any type of random access channels for use by both registered and unregistered mobile stations, as recited in claim 1. While the Examiner addresses these in the “Response to Arguments,” the Examiner confusingly refers to the “channel states” noted above. In addition to confusing “channel states” with a “current operating state” of a terminal, the Examiner fails to identify any random access channel in *Myles* that is used by both registered and unregistered mobile stations.

This is understandable, as *Myles* teaches that registered terminals use one type of access channel, while unregistered terminals use another type of access channel. For example, *Myles* teaches a hub station allocating up-link slots to registration channels and data channels (Table 1A, row “chan_id”). *Myles* also teaches that an unregistered mobile station waits for a hub to issue a registration slot to register (Figure 11b, column 12 line 64 to column 13 line 3), thus, unregistered mobile stations cannot use data channels for registration. *Myles* further teaches any (registered) mobile stations with queued data units can contend for access to a data channel with the empty state (column 11 lines 7-9). However, *Myles* does not teach or suggest that a registered mobile station can use registration channels dedicated for use by unregistered mobile stations. Therefore, *Myles* does not teach or suggest a contention based random access channel used by registered and unregistered terminals, as set forth in claim 1.

Myles also fails to teach transmitting a first contention-based message of a first format on a first contention-based random access channel to access the system if the terminal is registered and transmitting a second contention-based message with a different format than the first

message on a second random access channel to access the system if the terminal is unregistered, as recited in claims 15, 39, and 40.

While the Examiner also addresses this element in the “Response to Arguments,” the Examiner makes an unclear reference to the IEEE 802.11 standard regarding contention and non-contention based access using different frame formats. The Examiner fails to identify any teaching, however, of utilizing contention based messages of different formats, depending on whether a terminal is registered or unregistered, as recited in the claims.

As described in paragraphs [0046] and [0052] of the publication of the present application, for certain embodiments, two random access channels (e.g., S-RACH and F-RACH) may use different message formats. Table 2 and Table 3 list exemplary formats for F-RACH and S-RACH respectively:

TABLE 2		
<u>F-RACH Message</u>		
Fields Names	Length (bits)	Description
MAC ID	10	Temporary ID assigned to user terminal
Tail Bits	6	Tail bits for convolutional encoder

TABLE 3		
<u>S-RACH Message</u>		
Fields Names	Length (bits)	Description
MAC ID	10	Temporary ID assigned to user terminal
CRC	8	CRC value for the S-RACH message
Tail Bits	6	Tail bits for convolutional encoder

As shown above, messages for S-RACH and F-RACH have different field configurations, and the S-RACH includes a CRC field while the F-RACH does not.

The Examiner re-iterates the assertion that *Myles* teaches a second contention based message with a different format than a first message because *Myles* teaches unregistered mobile

stations using a modified ALOHA protocol. Applicants, again submit that *Myles* teaches that mobile stations *use the same field configuration for data transmission and management transmission*, as shown in Figure 9. *Myles* further explained the mobile station data format in Table 1B:

TABLE 1B

<u>Mobile station protocol data unit fields</u>	
Field	Description
dest-id	Identifier of the destination for the payload
source-id	Identifier of the source of the payload.
type	An identifier for an up link data unit format, additionally distinguishing between data and management payloads.
flow-rq	Flow request for this channel
contend-rq	Request to be counted as a mobile station competing for ALOHA slots.
payload	For a data channel: fixed length data, eg 4 x 53 bytes For a management transmission: management data units including registration request, management request and management response.
crc	Data unit integrity check.

Thus, *Myles* teaches that registered and unregistered mobile stations use the same message format with different contents in “type” and “payload” fields.

Accordingly, for at least these reasons, Applicants submit that claims 1, 15, 39, and 40, as well as their dependents, are allowable over the art of record and respectfully request withdrawal of this rejection with respect to these claims.

Claim Rejections - 35 U.S.C. § 103

Claims 14, 44-47, 59-61, 74-77 and 93-96 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Myles*.

Claims 14, 44-47, 59-61, 74-77 and 93-96 are dependent from claims 1, 15, 39, and 40, which Applicants submit are allowable for at least the reasons discussed above. Accordingly, for at least these reasons, Applicants respectfully submit that these claims are also allowable over the art of record. Withdrawal of this rejection is respectfully requested.

Claims 12, 70 and 89 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Myles* in view of *du Crest et al.* (U.S. Publication No. 2004/0047292, hereinafter, "*du Crest*").

Claims 12, 70, and 89 are dependent from claims 1, 39, and 40, which Applicants submit are allowable for the reasons discussed above. As with *Myles*, *du Crest* also does not teach or suggest a random access channel used by a registered and unregistered terminals, or two random access channels using different message formats. Accordingly, for at least these reasons, Applicants respectfully submit that claims 12, 70, and 89 are also allowable over the art of record and respectfully request withdrawal of this rejection.

Claim 13 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Myles* in view of *Caldwell* (U.S. Publication No. 2002/0122393).

Claim 13 is dependent from claim 1, which Applicants submit is allowable for the reasons discussed above. As with *Myles*, *Caldwell* also does not teach or suggest a random access channel used by registered and unregistered terminals. Accordingly, for at least these reasons, Applicants respectfully submit that claim 13 is also allowable over the art of record and respectfully request withdrawal of this rejection.

Accordingly, for at least the reasons presented above, Applicants submit that all of the pending claims are allowable over the art of record and in condition for allowance and respectfully request a notice to that effect.

Conclusion

Therefore, for at least the reasons presented above with respect to all of the pending claims subsequent to entry of this response, Applicants assert that all claims are patentably

distinct from all of the art of record. All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Charge Statement: For this application, the Commissioner is hereby authorized to charge any required fees or credit any overpayment to Deposit Account 17-0026.

Respectfully submitted,
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